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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,599	04/22/2004	Kuldipsingh A. Pabla	5681-75600	6853
58467	7590	11/07/2008		
MHKKG/SUN P.O. BOX 398 AUSTIN, TX 78767			EXAMINER JACOBS, LASHONDA T	
			ART UNIT 2457	PAPER NUMBER
			MAIL DATE 11/07/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/829,599	<b>Applicant(s)</b> PABLA, KULDIPSINGH A.	
	<b>Examiner</b> LASHONDA T. JACOBS	<b>Art Unit</b> 2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

This Office Action is in response to Applicant's amendment filed on October 6, 2008.

Claims 1-52 are still pending and presented for further examination.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-6, 9-12, 15-18, 21-26, 29-33, 36-42** and **45-50** are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle (U.S. Patent No. US 6,009,455) in view of Kortuem et al (When Peer-to-Peer comes Face-to-Face: Collaborative Peer-to-Peer Computing in Mobile Ad hoc Networks published in First International Conference on Peer-to-Peer Computing proceedings, August 2001, Pages: 75-91) (hereinafter, "Kortuem").

As per claims **1, 9, 15, 21, 29, 36, 37** and **45**, Doyle discloses a grid computing system, comprising:

- a master node configured to manage a grid comprising one or more compute nodes (master computer 5 in figure 2a and client computers 11 in figure 2a in which the master computer executes a master control program, reference character 10 in figure 2a, to manage the distributed computation between job request/output means and client computers, see, e.g., col. 3, lines 42-57 and figure 2a);

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- a node configured to send the master node information about compute node configuration to the node (client control program, reference character 12 in figure 2a, sends to the master computer the existence and configuration of various predetermined resources on the client computer, see, e.g., col.3, line 64 to col. 4, line 10);

wherein the master node is configured to:

- determine from the information about compute node configuration that the compute node configuration of the node needs to be updated (qualification algorithm, 45 in figure 2b, in the master control program determines if an available client is a candidate to participate in a distributed computation, see, e.g., col. 4, lines 20-23); and
- send update information for the compute node configuration that the compute node configuration of the node needs to be updated (job computation module, 14 in figure 2c, determine which mode the program should operate based on the job request message from job request means, 1 in figure 2c, and sends it to the available clients, see, e.g., col. 5, line 64 to col. 6, line 16).

However, Doyle does not explicitly disclose:

- in accordance with the one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

- in accordance with the one or more peer-to-peer platform protocols (see, e.g., page 85, section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-peer applications. Presence protocol (Proem) contains messages that allow peers to

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announce their presence and the availability of entities throughout a network.

Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover all neighboring nodes, which have not been connected as a fixed network or configured, with the master node to participate in distributed or grid computing system.

As per claim **22**, **38** and **46**, Doyle discloses:

- wherein the other node is a logically nearby node to the system on the network (col. 3, lines 42-57).

As per claims **23**, **30**, **39** and **47**, Doyle discloses:

- wherein the node is a master node configured to manage the grid (master computer 5 in figure 2a and client computers 11 in figure 2a in which the master computer executes a master control program, reference character 10 in figure 2a, to manage the distributed computation between job request/output means and client computers, see, e.g., col. 3, lines 42-57 and figure 2a).

As per claims **24**, **31**, **40** and **48**, Doyle discloses:

- wherein the node is a compute node in the grid (master computer 5 in figure 2a and client computers 11 in figure 2a in which the master computer executes a master control program, reference character 10 in figure 2a, to manage the distributed computation between job request/output means and client computers, see, e.g., col. 3, lines 42-57 and figure 2a).

As per claim **25**, Doyle discloses the invention substantially as claims discussed above.

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However, Doyle does not explicitly disclose:

- wherein the program instructions are further executed by the processor to discover the node in accordance with one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

- wherein the program instructions are further executed by the processor to discover the node in accordance with one or more peer-to-peer platform protocols (see, e.g., page 85, section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-peer applications. Presence protocol (Proem) contains messages that allow peers to announce their presence and the availability of entities throughout a network.

Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover all neighboring nodes, which have not been connected as a fixed network or configured, with the master node to participate in distributed or grid computing system.

As per claims **2, 10, 16, 41** and **49**, Doyle discloses the invention substantially as claims discussed above.

However, Doyle does not explicitly disclose:

- wherein the node is further configured to discover the master node in accordance with one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

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- wherein the program instructions are further executed by the processor to discover the node in accordance with one or more peer-to-peer platform protocols (see, e.g., page 85, section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-peer applications. Presence protocol (Proem) contains messages that allow peers to announce their presence and the availability of entities throughout a network.

Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover all neighboring nodes, which have not been connected as a fixed network or configured, with the master node to participate in distributed or grid computing system.

As per claims 3, Doyle discloses:

- wherein the node comprises a bootstrapping mechanism configured to discover the master node and to send the discovered master node information about compute node configuration in accordance with the one or more peer-to-peer platform protocols at startup of the node (the primary function of the availability algorithm, 13 in figure 2a, is to notify the master computer that the client is available, see, e.g., col. 3, lines 58-61) configured to discover the master node and to send information about the node to the discovered master node see, e.g., col. 4, line 14-20).

However, Doyle does not explicitly disclose:

- in accordance with the one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

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- in accordance with the one or more peer-to-peer platform protocols (see, e.g., page 85, section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-peer applications. Presence protocol (Proem) contains messages that allow peers to announce their presence and the availability of entities throughout a network.

Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover all neighboring nodes, which have not been connected as a fixed network or configured, with the master node to participate in distributed or grid computing system.

As per claims **4, 11, 17, 32**, Doyle discloses:

- wherein the node is further configured to update the compute node configuration in accordance with the update information (client control program, reference character 12 in figure 2a, sends to the master computer the existence and configuration of various predetermined resources on the client computer, see, e.g., col.3, line 64 to col. 4, line 10).

As per claims **5, 12, 18, 26, 33, 42** and **50**, Doyle discloses:

- wherein the node is further configured to self-configure as a compute node in the grid in accordance with the updated grid configuration information (availability algorithm, 13 in figure 2b, concludes the respective client computer as available clients and qualification algorithm, 45 in figure 2b, determines the available clients as a candidate to participate in a distributed computation, see, e.g., col. 4, lines 11-27).



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As per claim 6, Doyle discloses wherein the grid computing system further comprises a job submitter node and wherein the master node is further configured to:

- receive a job from the job submitter (each selected client is downloaded with the job request files, 18 in figure 2d, included in the segment group package from the master control program, 46 in figure 2d, see, e.g., col.6 lines 21-26 and figure 2d);
- distribute the job to the node for execution (each selected client is controlled by sending commands and files from the master control program to the client control program over the network, see, e.g., col. 6, lines 17-29 and figure 2d);
- receive the results of the execution from the node (the output files from the two selected clients are uploaded to the master computer, see, e.g., col. 6, lines 56-60 and figure 2e); and
- send the results to the job submitter node (job output means, reference character 3 in figure 2a, see, e.g., col. 3, lines 20-23 and the master control program then forwards these formatted files to the job output means, see, e.g., col. 7, lines 25-36 and figure 2f).

However, Doyle does not explicitly disclose:

- in accordance with the one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

- in accordance with the one or more peer-to-peer platform protocols (see, e.g., page 85, section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-peer applications. Presence protocol (Proem) contains messages that allow peers to

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announce their presence and the availability of entities throughout a network.

Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover all neighboring nodes, which have not been connected as a fixed network or configured, with the master node to participate in distributed or grid computing system.

3. Claims **7, 13, 19, 27, 34, 43** and **51** are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle in view of Kortuem and further in view of Sun Cluster Grid architecture (hereinafter Sun Cluster)(Sun Cluster Grid Architecture- a Technical White Paper Describing the Foundation of Sun Grid Computing, published by Sun Microsystems on May 2002).

As per claims **7, 13, 19, 27, 34, 43** and **51**, Doyle in view of Kortuem discloses the invention substantially as claims discussed above.

However, Doyle in vie of Kortuem does not explicitly disclose:

- wherein the grid computing system is configured according to Sun Cluster Grid architecture.

Sun Cluster discloses Sun Cluster Grid architecture provides the foundation for building and deploying a Cluster Grid system (see, e.g., pages 20-21).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Doylein view of Kortuem to include Sun Cluster Grid architecture as the grid computing system as taught by Sun Cluster in order to provide scalable and reliable foundation

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for building and deploying a successful Grid system.

4. Claims **8, 14, 20, 28, 35, 44** and **52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle in view of Kortuem and further in view of JXTA Chapter 1 (JXTA, by Brendon J. Wilson, published by New Riders Publishing on June 2002).

As per claims **8, 14, 20, 28, 35, 44** and **52**, Doyle in view of Kortuem discloses the invention substantially as claims discussed above.

However, Doyle in view of Kortuem does not explicitly disclose:

- wherein the peer-to-peer platform protocols are JXTA protocols.

JXTA Chapter 1 defines JXTA protocols are language-independent, defining a set of XML messages to coordinate some aspect of P2P networking (see, e.g., pages 13-14).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Doyle in view of Kortuem to include JXTA protocols as the peer-to-peer platform protocols as taught by JXTA Chapter 1 in order to simplify the implementation of peer-to-peer networking solutions on any devices.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims **1-52** have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LASHONDA T. JACOBS whose telephone number is (571)272-4004. The examiner can normally be reached on 8:30 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LaShonda T Jacobs/  
Primary Examiner, Art Unit 2457

ltj  
November 5, 2008